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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,694	10/17/2003	Carl E. Altman	H0004484	2369

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Honeywell International Inc.
15801 Woods Edge Road
Colonial Heights, VA 23834

EXAMINER

DANIELS, MATTHEW J

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,694

Applicant(s)

ALTMAN, CARL E.

Examiner

Matthew J. Daniels

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
4a) Of the above claim(s) 13, 26 and 27 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 and 14-25 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/17/03, 2/18/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

Handwritten signature

DETAILED ACTION

1. No forms designating Mr. Criss as an attorney of record appear to be present in this case. However, it is assumed that Mr. Criss has been appointed by an attorney of record under 37 CFR 1.34(b).

Election/Restrictions

2. Applicant's election with traverse of Group I in the reply filed on 1 August 2005 is acknowledged. The traversal is on the ground(s) that a) the claims are product-by-process claims and it is not clear how restriction can properly be made between a process and product claim which recites the process limitations, b) the Office has submitted no evidence that the cited process would produce the same product as the process of Claims 1-12 and 14-25, and c) the claims are so interrelated that they are best examinable in one application and would not present an undue burden. These arguments are not found persuasive because:
 - a) A product-by-process claim is still drawn to a product, and not to the limitations of the process. In this case, it is the examiner's position that the product could be made by hot pressing and rolling, and the arguments presented by the Applicant do not appear to dispute this assertion.
 - b) It is not believed that evidence is required in this case. Hot pressing is a common process for fusing fluorinated polymers into films or sheets. It is maintained that hot pressing could be used to produce the films claimed in this case.
 - c) The Examiner maintains that the burden is present as set forth in the previous action.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

3. Claim 1 is objected to because of the following informalities: Revision of “while it in its crystalline state” (emphasis added) should be considered. Additionally, the full name of the chemical compound (PCTFE) should be written out at least once to clearly designate the compound sought. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 4-9, 11, and 12** are rejected under 35 U.S.C. 102(b) as being anticipated by

Mizuno (USPN 5833070). **As to Claim 1**, Mizuno teaches:

a) extruding molten PCTFE polymer (Column 5)

b) cooling the PCTFE polymer to a temperature below its melting point to form a film that is crystalline (6:1-5, crystalline content is inherent in that the film is still crystalline after stretching, see 4:53-58)

c) orienting the PCTFE film while in its crystalline state by stretching the film at a stretch ratio of at least about 1.5:1 while holding the film under tension and (See areal stretch ratio of 3 times, 6:7-10, which is inherently at least 1.5 in biaxial stretching, greater in uniaxial stretching)

d) wherein the resulting film has a water vapor transmission rate of less than about 0.775 g/meter squared/day (See 3:10-15 for % crystallinity, ratio shown in 3:17-18, and 4:59-67)

Mizuno additionally teaches the following limitations:

Claims 4 and 5: See 4:41-42

Claims 6 and 7: See 6:7-10 which teaches all areal stretching ratios between 3 and 64 times

Claims 8 and 9: See 3:10-15 for % crystallinity, ratio shown in 3:17-18, and 4:59-67

Claims 11 and 12: See Column 6, particularly 6:16-23

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2, 3, and 10** are rejected under 35 U.S.C. 103(a) as being obvious over Mizuno (USPN 5833070). Mizuno teaches the subject matter of Claim 1. See the rejection of Claim 1 above under 35 USC 102(b). **As to Claims 2 and 3**, in view of Mizuno's teaching that the film has a percent crystallinity of 15-50% after stretching, it would have been prima facie obvious that the percent crystallinity before stretching would have also been within the claimed range of 15-35%. Note that Mizuno also teaches suppressing crystallinity by adjusting the quench temperature (6:1-5) and that the percent crystallinity is also varied in order to impart more moisture proofness or different rupture stress or softness (4:53-58). In view of these teachings, percent crystallinity appears to reflect a result-effective variable. See MPEP 2144.05 II and *In re*

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Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the percent crystallinity in order to optimize the moisture proofness, rupture stress, or softness. **As to Claim 10**, Mizuno teaches that the stretch affect produces a portion of the water-proofness (4:59-67), and therefore it would have been obvious to expect a decrease in the water vapor transmission rate when comparing Mizuno's stretched and unstretched films. Although silent to the 20% sought by the instant claims, it would have been obvious to expect at least a 20% decrease in water vapor transmission by stretching.

6. **Claims 14-25** are rejected under 35 U.S.C. 103(a) as being obvious over Mizuno (USPN 5833070) in view of DeAntonis (USPN 4677017). **As to Claim 14**, Mizuno teaches:

- a) extruding molten PCTFE polymer (Column 5)
- b) cooling the PCTFE polymer to a temperature below its melting point to form a film that is crystalline (6:1-5, crystalline content is inherent in that the film is still crystalline after stretching, see 4:53-58)
- c) orienting the PCTFE film while in its crystalline state by stretching the film at a stretch ratio of at least about 1.5:1 (See areal stretch ratio of 3 times, 6:7-10, which is inherently at least 1.5:1 in biaxial stretching, greater in uniaxial stretching) with draw rolls (6:24-25) which would have inherently had at least one faster roller and one slower roller to produce uniaxial drawing
- d) collecting the oriented film would have been inherent or obvious in that the film is used to form a packaged product (11:8-10), wherein the resulting film has a water vapor transmission

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rate of less than about 0.775 g/meter squared/day (See 3:10-15 for % crystallinity, ratio shown in 3:17-18, and 4:59-67)

Mizuno appears to be silent to the casting roll, however, this aspect was known and obvious in the art. For example, DeAntonis teaches casting onto a casting roller (9:10-12). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of DeAntonis into that of Mizuno in order to produce a clear film having a uniform appearance (9:24-26), and additionally to produce rapid temperature adjustment.

Mizuno and DeAntonis additionally teach the following limitations:

Claim 15: See DeAntonis, 9:14

Claims 16 and 17: See DeAntonis, 9:10-12

Claims 18 and 19: See Mizuno, 6:8-11. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to perform drawing with draw rolls maintained at these temperatures in the combined method

Claims 20 and 21: See Mizuno, 6:7-10, which teaches all areal stretching ratios between 3 and 64 times, encompassing the claimed stretch ratios in either uniaxial or biaxial stretching

Claims 22 and 23: In view of Mizuno's teaching that the film has a percent crystallinity of 15-50% after stretching, it would have been prima facie obvious that the percent crystallinity before stretching would have also been within the claimed range. Note that Mizuno also teaches suppressing crystallinity by adjusting the quench temperature (6:1-5) and that the percent crystallinity is also varied in order to impart more moisture proofness or different rupture stress or softness (4:53-58). In view of these teachings, percent crystallinity appears to reflect a result-effective variable. See MPEP 2144.05 II and *In re Boesch*, 617 F.2d 272, 205 USPQ 215

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(CCPA 1980). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to optimize the percent crystallinity in order to optimize the moisture proofness, rupture stress, or softness.

Claims 24 and 25: See Mizuno, 4:41-42

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 8/5/05

MJD


MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER